

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Canceled).

Claim 2 (Previously Presented) The process according to claim 15, wherein the process pressure is adjusted to between 0.6 bar absolute and 1.25 bar absolute and the process temperature is adjusted to between 1100°C and 1200°C.

Claim 3 (Cancelled).

Claim 4 (Canceled).

Claim 5 (Canceled).

Claim 6 (Canceled).

Claim 7 (Previously Presented) The process according to claim 15, wherein the heat-resistant material with a large surface is a carbon fiber felt.

Claim 8 (Previously Presented) The process according to claim 15, wherein carbon fiber scrims are used.

Claim 9 (Previously Presented) The process according to claim 15, wherein a residual porosity is adjusted to be between from 12 to 14 percent of volume.

Claim 10 (Cancelled).

Claim 11 (Currently Amended) The process according to claim 40 19, wherein the fiber layers are generated with a 0° or 90° laying angle to a main axis of the preform.

Claim 12 (Currently Amended) The process according to claim 40 19, wherein the binder is selected from organic and/or silicon-organic polymer resins.

Claim 13 (Previously Presented): Structural component parts, particularly for aircraft and spacecraft, produced according to the process of claim 15.

Claim 14 (Previously Presented) Structural component parts for control flaps, leading edges of blades, nose cones, control rudders or heat protection paneling for orbital gliders and hypersonic aircraft produced according to the process of claim 15.

Claim 15 (Currently Amended) In a process for producing a high temperature stable fiber composite ceramic by chemical vapor infiltration (CVI) with a methyltrichlorosilane (MTS) in hydrogen (H₂) on fiber scrims of carbon fiber preforms or silicon carbide fiber preforms, wherein the partial pressure ratio of hydrogen to methyltrichlorosilane is adjusted between 4 and 8, the process further comprises:

adjusting the process pressure to ≥ 0.6 bar absolute;

adjusting the process temperature to $\geq 1100^{\circ}\text{C}$; and

arranging a heat-resistant material with a large surface between a gas feed in the reaction space and the fiber scrims of carbon fiber preforms or silicon

carbide fiber preforms to be infiltrated for pre-reacting the ~~process gas~~
methyltrichlorosilane on contact with the large surface of the heat-resistant material.

Claim 16 (Previously Presented) A high temperature stable fiber composite ceramic obtain by chemical vapor infiltration with methyl trichlorosilane in hydrogen on fiber scrims of carbon fiber preforms or silicon carbide fiber preforms wherein the partial pressure ratio of hydrogen to methyl trichlorosilane is adjusted between 4 and 8 and wherein the process pressure is greater or equal to 0.6 bar absolute, the process temperature is equal to or greater then 1100° C and

wherein a heat-resistant material is arranged with a large surface between a gas feed in the reaction space and the fiber scrims of carbon fiber preforms or silicon carbide fiber preforms to be infiltrated for pre-reacting the process gas on contact with the large surface of the heat-resistant material and wherein the carbon fiber preforms or silicon carbide fiber preforms are produced by first constructing and fixing fiber layers one above the other at a distance from one another by binders, possibly accompanied by simultaneous molding and stabilization of the free-form approximating the desired end product.

Claim 17 (Previously Presented) The high temperature stable fiber composite ceramic of claim 16 in the form of structural component parts for aircraft and spacecraft.

Claim 18 (Previously Presented) The high temperature stable fiber composite ceramic of claim 16 in the form of structural component parts for control flaps, a

leading edges of blades, nose cones, control rudders and or heat protection paneling for orbital gliders and hypersonic aircraft.

Claim 19 (New) In a process for producing a high temperature stable fiber composite ceramic by chemical vapor infiltration (CVI) with a methyltrichlorosilane (MTS) in hydrogen (H₂) on fiber scrims of carbon fiber preforms or silicon carbide fiber preforms, wherein the partial pressure ratio of hydrogen to methyltrichlorosilane is adjusted between 4 and 8, the process further comprising:

adjusting the process pressure to ≥ 0.6 bar absolute;

adjusting the process temperature to $\geq 1100^{\circ}\text{C}$; and

arranging a heat-resistant material with a large surface between a gas feed in the reaction space and the fiber scrims of carbon fiber preforms or silicon carbide fiber preforms to be infiltrated for pre-reacting the methyltrichlorosilane on contact with the large surface of the heat-resistant material, and wherein the carbon fiber preforms are silicon carbon fiber preforms are generated in that fiber layers are first constructed, the fiber layers are fixed one above the other at a distance from one another by binders.

Claim 20 (New) The process of Claim 19, which additionally comprises simultaneously molding and stabilizing the preform approximating a desired end product.